

IN THE ABSTRACT

Please substitute the following Abstract for the Abstract presently in the application:

**ABSTRACT OF THE DISCLOSURE**

An A/D converter converts the signal received by an array antenna and frequency-converted to a digital signal by a frequency converter. A correlation detector uses the chip rate as a cycle frequency and calculates a cyclic correlation matrix of spread spectrum signals stored in data storage. A cycle frequency detector detects the cycle frequency of an interference signal output from A/D converter. A correlation detector uses the detection result of the cycle frequency detector as a cycle frequency and calculates a cyclic correlation matrix of the signal, which becomes an interference signal, using the signal output from A/D converter. A direction of arrival is estimated, using the cyclic correlation matrices calculated by correlation detector and the correlation detector calculates the respective eigenvalues and eigenvectors and estimates the directions of arrival of a spread spectrum signal and a signal, which becomes an interference signal.